

CITY OF EAU CLAIRE RUNOFF MANAGEMENT GUIDELINES**(to replace sections D and E in City of Eau Claire's Developers Handbook)**

1. Definitions
 - a. Refer to City Ordinances 19.20 and 19.30 for definitions of terms used in this chapter.
2. Storm Sewer Design Standards
 - a. Location
 - i. Storm sewer pipes shall be constructed ten feet south or west of the centerline right of way or as approved by the City Engineer.
 - b. Minimum Depth:
 - i. The minimum depth of the top of pipe shall be four feet for pipes of 36 inch diameter or smaller.
 - ii. The minimum depth of the top of pipe shall be three feet for pipes with diameter larger than 36 inches.
 - iii. Insulation is required according to City specifications.
 - c. Existing Sewer:
 - i. The developer shall verify the location and size of the existing storm sewer.
 - d. Storm Water Drainage:
 - i. Storm water drainage must conform to the performance standards and requirements established in City Ordinance 19.20
 - ii. The developer is required to submit storm water calculations in accordance with the City Ordinance 19.20 with supporting documentation.
 - iii. Accepted methods for calculation of runoff and storage requirements are identified in City Ordinance 19.20.040.
 - iv. The developer shall ensure that the major drainage system as a viable route and does not damage property or pose a threat to public safety, consistent with the requirements of City Ordinance 19.20.
 - e. Retention Areas (no discharge infrastructure):
 - i. The use of retention (no discharge infrastructure) areas is prohibited in areas of the City where infiltration poses a threat to infrastructure, water quality, or public safety, as determined by the City Engineer.
 - ii. Use of such a device shall be approved by the City Engineer.
 - iii. Where permitted, retention and infiltration facilities shall be implemented in accordance with NR 151.12(5)(c).
 - f. Drainage Areas:
 - i. The developer must take into account the potential future development of an area.
 - ii. The developer must take into account the off-site drainage which routes through the development.
3. Erosion Control Design Standards
 - i. Erosion control shall be in accordance with requirements of City Ordinance 19.30.
4. Erosion and Sediment Control Plan

- a. Erosion and Sediment Control Plan Requirements. If required per City Ordinance 19.30.050, an erosion and sediment control plan shall be prepared meeting the requirements described in this section.
- b. The erosion and sediment control plan shall address pollution caused by soil erosion and sedimentation during construction and up to final stabilization of the site. The erosion and sediment control plan shall include, at a minimum, the following items:
 - i. Name(s) and address(es) of the owner or developer of the site, and of any consulting firm retained by the applicant, together with the name of the applicant's principal contact at such firm. The application shall also include start and end dates for construction.
 - ii. Description of the construction site and the nature of the land disturbing construction activity, including representation of the limits of land disturbance on a United States Geological Service 7.5 minute series topographic map.
 - iii. Description of the intended sequence of major land disturbing construction activities for major portions of the construction site, including stripping and clearing; rough grading; construction of utilities, infrastructure, and buildings; and final grading and landscaping. Sequencing shall identify the expected date on which clearing will begin, the estimated duration of exposure of cleared areas, areas of clearing, installation of temporary erosion and sediment control measures, and establishment of permanent vegetation.
 - iv. Estimates of the total area of the construction site and the total area of the construction site that is expected to be disturbed by land disturbing construction activities.
 - v. Calculations to show the compliance with the performance standard in S. 19.30.
 - vi. Existing data describing the surface soil as well as subsoils.
 - vii. Depth to groundwater, as indicated by Natural Resources Conservation Service soil information, or other sources, where available.
 - viii. Name of the immediate named receiving water from the United States Geological Service 7.5 minute series topographic maps.
- c. The erosion and sediment control plan shall include a site map. The site map shall include the following items and shall be at a scale not greater than 100 feet per inch and at a contour interval not to exceed five feet:
 - i. Existing topography, vegetative cover, natural and engineered drainage systems, roads and surface waters. Lakes, streams, wetlands, channels, ditches and other watercourses on and immediately adjacent to the site shall be shown. Any identified 100-year flood plains, flood fringes and floodways shall also be shown.
 - ii. Boundaries of the construction site.
 - iii. Drainage patterns and approximate slopes anticipated after major grading activities.
 - iv. Areas of soil disturbance.
 - v. Location of major structural and non-structural controls identified in the erosion and sediment control plan.
 - vi. Location of areas where stabilization BMPs will be employed.
 - vii. Areas which will be vegetated following land disturbing construction activities.
 - viii. Area(s) and location(s) of wetland on the construction site, and locations where storm water is discharged to a surface water or wetland within one-quarter mile downstream of the construction site.
 - ix. Areas(s) used for infiltration of post-construction storm water runoff.
 - x. An alphanumeric or equivalent grid overlying the entire construction site map.
- d. Each erosion and sediment control plan shall include a description of appropriate control BMPs that will be installed and maintained at the construction site to prevent pollutants from reaching waters of the state. The erosion and sediment control plan shall clearly describe the appropriate erosion and sediment control BMPs for each major land disturbing construction activity and the timing during the period of land disturbing construction activity that the erosion and sediment control BMPs will be implemented.

The description of erosion and sediment control BMPs shall include, when appropriate, the following minimum requirements:

- i. Description of interim and permanent stabilization practices, including a BMP implementation schedule. The erosion and sediment control plan shall ensure that existing vegetation is preserved where attainable and that disturbed portions of the site are stabilized.
- ii. Description of structural practices to divert flow away from exposed soils, store flows or otherwise limit runoff and the discharge of pollutants from the site. Unless otherwise specifically approved in writing by the City Engineer, structural measures shall be installed on upland soils.
- iii. Management of overland flow at all areas of the construction site, unless otherwise controlled by outfall controls.
- iv. Trapping of sediment in channelized flow.
- v. Staging land disturbing construction activities to limit exposed soil areas subject to erosion.
- vi. Protection of downslope drainage inlets where they occur.
- vii. Minimization of tracking at all vehicle and equipment entry and exit locations of the construction site.
- viii. Clean up of off-site sediment deposits.
- ix. Proper disposal of building and waste material.
- x. Stabilization of drainage ways.
- xi. Installation of permanent stabilization practices as soon as possible after final grading.
- xii. Minimization of dust to the maximum extent practicable.
- e. The erosion and sediment control plan shall require that velocity dissipation devices be placed at discharge locations and along the length of any outfall channel as necessary to provide a non-erosive flow from the structure to a water course so that the natural physical and biological characteristics and functions are maintained and protected.
- f. Erosion and Sediment Control Plan Amendments. The applicant shall amend the erosion and sediment control plan if any of the following occur:
 - i. There is a change in design, construction, operation or maintenance at the site which has the reasonable potential for the discharge of pollutants to waters of the state and which has not otherwise been addressed in the erosion and sediment control plan.
 - ii. The actions required by the erosion and sediment control plan fail to reduce the impacts of pollutants carried by construction site runoff.
 - iii. The City Engineer notifies the applicant of changes needed in the erosion and sediment control plan.

5. Stormwater Management Plan

- a. Stormwater Management Plan Requirements. The storm water management plan required under City Ordinance 19.20.030 shall contain at a minimum the following information:
 - i. Name, address, and telephone number for the following or their designees: landowner; developer; project engineer for practice design and certification; person(s) responsible for installation of storm water best management practices; and person(s) responsible for maintenance of storm water best management practices prior to the transfer, if any, of maintenance responsibility to another party.
 - ii. A proper legal description of the property proposed to be developed, referenced to the U.S. Public Land Survey system or to block and lot numbers within a recorded land subdivision plat.
 - iii. Pre-development site conditions, including:
 1. One or more site maps at a scale of not less than 1 inch equals 50 feet. The site maps shall show the following:
 - a. site location and legal property description;

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- b. site location and legal property description;
 - c. predominant soil types and hydrologic soil groups;
 - d. existing cover type and condition;
 - e. topographic contours of the site at a scale not to exceed 2 feet;
 - f. spot ground elevations at all parcel corners, at 50-foot intervals along all drainage swales and drainage ditches, and at horizontal bends and grade breaks.
 - g. topography and drainage network including enough of the contiguous properties to show runoff patterns onto, through, and from the site;
 - h. watercourses that may affect or be affected by runoff from the site;
 - i. flow path and direction for all storm water conveyance sections;
 - j. watershed boundaries used in hydrology determinations to show compliance with performance standards;
 - k. lakes, streams, wetlands, channels, ditches, and other watercourses on and immediately adjacent to the site;
 - l. the estimated water surface elevation during a 1% annual exceedance probability (100 year) runoff event and the limits of the 100 year floodplain for all lots adjacent to storm water detention facilities, wetlands, lakes, streams, and drainage ditches.
 - m. location of wells and wellhead protection areas covering the project area and delineated pursuant to s. NR 811.16, Wis. Adm. Code.
2. Hydrology and pollutant loading computations as needed to show compliance with performance standards. All major assumptions used in developing input parameters shall be clearly stated. The geographic areas used in making the calculations shall be clearly cross-referenced to the required map(s).
- iv. Post-construction site conditions, including:
- 1. Explanation of the provisions to preserve and use natural topography and land cover features to minimize changes in peak flow runoff rates and volumes to surface waters and wetlands.
 - 2. Explanation of any restrictions on storm water management measures in the development area imposed by wellhead protection plans and ordinances.
 - 3. One or more site maps at a scale of not less than 1 inch equals 50 feet showing the following:
 - a. post-construction pervious areas including vegetative cover type and condition; impervious surfaces including all buildings, structures, and pavement;
 - b. post-construction topographic contours of the site at a scale of not less than 1 inch equals 50 feet;
 - c. spot ground elevations at all parcel corners, at 50-foot intervals along all drainage swales and drainage ditches, and at horizontal bends and grade breaks.
 - d. slope stabilization measures including: retaining walls, reinforced earth, geotextiles, and erosion matting.
 - e. site restoration plan including: vegetation types and limits, paving materials and limits, and other landscaping materials and limits;
 - f. post-construction drainage network including enough of the contiguous properties to show runoff patterns onto, through, and from the site;
 - g. locations and dimensions of drainage easements;

- h. locations of maintenance easements specified in the maintenance agreement;
 - i. flow path and direction for all storm water conveyance sections;
 - j. location and type of all storm water management conveyance and treatment practices, including the on-site and offsite tributary drainage area;
 - k. location and type of conveyance system that will carry runoff from the drainage and treatment practices to the nearest adequate outlet such as a curbed street, storm drain, or natural drainage way;
 - l. watershed boundaries used in hydrology and pollutant loading calculations and any changes to lakes, streams, wetlands, channels, ditches, and other watercourses on and immediately adjacent to the site.
 - m. the estimated water surface elevation during a 1% annual exceedance probability (100-year) runoff event and the limits of the 100 year floodplain for all lots adjacent to storm water detention facilities, wetlands, lakes, streams, and drainage ditches. Minimum exposed opening elevations shall be established at 2 feet above the estimated water surface. These elevations shall be recorded on the face of the plat or certified survey map.
 - 4. Hydrology and pollutant loading computations as needed to show compliance with performance standards. The computations shall be made for each discharge point in the development, and the geographic areas used in making the calculations shall be clearly cross-referenced to the required map(s).
 - 5. Results of investigations of soils and groundwater required for the placement and design of storm water management measures. Detailed drawings including cross-sections and profiles of all permanent storm water conveyance and treatment practices.
 - v. A description and installation schedule for the storm water best management practices needed to meet the performance standards in City Ordinance 19.20.
 - vi. A maintenance plan developed for the life of each storm water best management practice including the required maintenance activities and maintenance activity schedule.
 - vii. Cost estimates for the construction, operation, and maintenance of each storm water best management practice.
 - viii. Other information requested in writing by the City Engineer to determine compliance of the proposed storm water best management practices with the provisions of this ordinance.
 - ix. All site investigations, plans, designs, computations, and drawings shall be certified by a professional engineer licensed in Wisconsin and prepared in accordance with accepted engineering practice and requirements of this ordinance.
 - b. Alternate Requirements. The City Engineer may prescribe alternative submittal requirements for applicants seeking an exemption to on-site storm water management performance standards under City Ordinance. 19.20.300.
- 6. Permitting Requirements, Procedures, and Fees.
 - a. Permit Required. No responsible party may undertake a land disturbing activity without receiving a post-construction runoff permit in the form of a "Grading and Drainage Approval" letter from the City Engineer prior to commencing the proposed activity
 - b. Permit Application. The Community Development Department will inform applicants of the process and fees when applicants inquire about projects. Unless specifically excluded

in accordance with City Ordinance 19.20.010 and City Ordinance 19.30.010, a permit application must be accompanied by a:

- i. storm water management plan meeting the requirements described in this document;
 - ii. erosion and sediment control plan meeting the requirements described in this document;
 - iii. maintenance agreement; and
 - iv. non-refundable permit application fee.
- c. Application Fees. The application fee and other fees referred to this document shall be established by the City Engineer and may from time to time be modified by resolution. A schedule of the fees established by the City Engineer shall be available from the Community Development Department and for review in city hall and the city's website.
- d. Permit Application Review and Approval. The City Engineer shall review any permit application that is submitted with a storm water management plan, maintenance agreement, and the required fee. The following approval procedure shall be used:
- i. After receipt of a complete permit application the City Engineer shall inform the applicant whether the application, storm water management plan and maintenance agreement are approved or disapproved based on the requirements of this ordinance.
 - ii. If the permit application, storm water management plan and maintenance agreement are approved, or if an agreed upon payment of fees in lieu of storm water management practices is made, the City Engineer shall issue the permit.
 - iii. If the post-construction runoff permit application, storm water management plan or maintenance agreement is disapproved, the City Engineer shall detail in writing the reasons for disapproval.
 - iv. The City Engineer may request additional information from the applicant. If additional information is submitted, the City Engineer shall inform the applicant that the storm water management plan and maintenance agreement are either approved or disapproved.
- e. Permit Requirements. All permits issued under City Ordinance 19.20 shall be subject to the following conditions, and holders of permits issued under City Ordinance 19.20 shall be deemed to have accepted these conditions. The City Engineer may suspend or revoke a permit for violation of a permit condition, following written notification of the responsible party. An action by the City Engineer to suspend or revoke this permit may be appealed in accordance with City Ordinance 19.20.410.
- i. Compliance with this permit does not relieve the responsible party of the responsibility to comply with other applicable federal, state, and local laws and regulations.
 - ii. The responsible party shall design and install all structural and non-structural stormwater best management measures in accordance with the approved storm water management plan and this permit.
 - iii. The responsible party shall notify the City Engineer before commencing any work in conjunction with the storm water management plan, and upon completion of the storm water management practices. If required as a special condition under Section 6f, the responsible party shall make additional notification according to a schedule set forth by the City Engineer so that practice installations can be inspected during construction.
 - iv. Practice installations required as part of this ordinance shall be certified "as built" or "record" drawings by a professional engineer licensed in Wisconsin. Completed storm water management practices must pass a final inspection by the City Engineer or its designee to determine if they are in accordance with the approved storm water management plan and ordinance. The City Engineer or its designee shall notify the responsible party in writing of any changes required in such practices to bring them into compliance with the conditions of this permit.
 - v. The responsible party shall notify the City Engineer of any significant modifications it intends to make to an approved storm water management plan.

The City Engineer may require that the proposed modifications be submitted to it for approval prior to incorporation into the storm water management plan and execution by the responsible party.

- vi. The responsible party shall maintain all storm water management practices in accordance with the storm water management plan until the practices either become the responsibility of the City of Eau Claire, or are transferred to subsequent private owners as specified in the approved maintenance agreement.
 - vii. The responsible party authorizes the City Engineer to perform any work or operations necessary to bring storm water management measures into conformance with the approved storm water management plan, and consents to a special assessment or charge against the property as authorized under subch. VII of ch. 66, Wis. Stats., or to charging such costs against the financial guarantee posted under Section 9.
 - viii. If so directed by the City Engineer, the responsible party shall repair at the responsible party's own expense all damage to adjoining municipal facilities and drainage ways caused by runoff, where such damage is caused by activities that are not in compliance with the approved storm water management plan.
 - ix. The responsible party shall permit property access to the City Engineer or its designee for the purpose of inspecting the property for compliance with the approved storm water management plan and this permit.
 - x. Where development or redevelopment involves changes in direction, increases in peak rate and/or total volume of runoff from a site, the City Engineer may require the responsible party to make appropriate legal arrangements with affected property owners concerning the prevention of endangerment to property or public safety.
 - xi. The responsible party is subject to the enforcement actions and penalties detailed in Section 10, if the responsible party fails to comply with the terms of this permit.
- f. Permit Conditions. Permits issued under this subsection may include conditions established by the City Engineer in addition to the requirements needed to meet the performance standards in City Ordinance 19.20 or a financial guarantee as provided for in Section 9.
- g. Permit Duration. Permits issued under this section shall be valid from the date of issuance through the date the City Engineer notifies the responsible party that all storm water management practices have passed the final inspection required under Section 6e, unless one of the following conditions occurs:
- i. work is not initiated within one year of permit issuance, or
 - ii. work is idle for 12 consecutive months, or
 - iii. work is not completed within 3 years of permit issuance.

7. Inspection

- a. Inspection reports required under the developer's agreement:
 - i. Daily inspection reports must be submitted to the City Engineer on a weekly basis, and signed by both the inspector and the Professional Engineer supervising the inspection
 - ii. Inspectors shall use the standard inspection form attached (see Attachment 4)
 - iii. Daily inspection forms shall be submitted one day prior to the weekly construction meeting with the City.
- b. City Inspection. The City will provide periodic inspection during the project.

8. Maintenance Agreement.

- a. Maintenance agreement required. A maintenance agreement is required for all private storm water management practices except those that serve one- and two-family residential development per City Ordinance 19.20.390. The maintenance agreement for storm water management practices shall be an agreement between the City Engineer

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and the responsible party to provide for maintenance of storm water practices beyond the duration period of this permit. The maintenance agreement shall be filed with the County Register of Deeds as a property deed restriction so that it is binding upon all subsequent owners of the land served by the storm water management practices.

- b. Agreement Provisions. The maintenance agreement shall contain the following information and provisions and be consistent with the maintenance plan required by the stormwater management plan described in Section 5:
 - i. Identification of the storm water facilities and designation of the drainage area served by the facilities.
 - ii. A schedule for regular maintenance of each aspect of the storm water management system consistent with the storm water management plan required under Section 5.
 - iii. Identification of the responsible party(s), organization or city, county, town or village responsible for long term maintenance of the storm water management practices identified in the storm water management plan required under Section 5.
 - iv. Requirement that the responsible party(s), organization, or city, county, town or village shall maintain storm water management practices in accordance with the schedule included in Section 8b(ii).
 - v. Authorization for the City Engineer to access the property to conduct inspections of stormwater best management practices as necessary to ascertain that the practices are being maintained and operated in accordance with the agreement.
 - vi. A requirement on the City Engineer to maintain public records of the results of the site inspections, to inform the responsible party responsible for maintenance of the inspection results, and to specifically indicate any corrective actions required to bring the stormwater best management practice into proper working condition.
 - vii. Agreement that the party designated under Section 8b(iii), as responsible for long term maintenance of the stormwater best management practices, shall be notified by the City Engineer of maintenance problems which require correction. The specified corrective actions shall be undertaken within a reasonable time frame as set by the City Engineer.
 - viii. Authorization of the City Engineer to perform the corrected actions identified in the inspection report if the responsible party designated under Section 8b(iii) does not make the required corrections in the specified time period. The City Engineer shall enter the amount due on the tax rolls and collect the money as a special charge against the property pursuant to subch. VII of ch. 66, Wis. Stats.

9. Financial Guarantee

- a. Establishment of the Guarantee. The City Engineer may require the submittal of a financial guarantee, the form and type of which shall be acceptable to the City Engineer. The financial guarantee shall be in an amount determined by the City Engineer to be the estimated cost of construction and the estimated cost of maintenance of the stormwater best management practices during the period which the designated party in the maintenance agreement has maintenance responsibility. The financial guarantee shall give the City Engineer the authorization to use the funds to complete the stormwater best management practices if the responsible party defaults or does not properly implement the approved storm water management plan, upon written notice to the responsible party by the City Engineer that the requirements of this ordinance have not been met.
- b. Conditions for Release. Conditions for the release of the financial guarantee are as follows:
 - i. The City Engineer shall release the portion of the financial guarantee established under this section, less any costs incurred by the City Engineer to complete installation of practices, upon submission of "as built plans" or "record" drawings by a professional engineer licensed in Wisconsin. The City Engineer may make

provisions for a partial pro-rata release of the financial guarantee based on the completion of various development stages.

- ii. The City Engineer shall release the portion of the financial guarantee established under this section to assure maintenance of stormwater best management practices, less any costs incurred by the City Engineer, at such time that the responsibility for practice maintenance is passed on to another entity via an approved maintenance agreement.

10. Enforcement

- a. Site plan enforcement is performed by the Zoning Administrator. The Building Inspector is responsible for enforcement during construction. If the land disturbing activity does not include building construction, enforcement is performed by the Zoning Administrator. Larger projects are enforced through the specific procedures outlined in project-specific development agreements between the developer and the City.
- b. Any land disturbing construction activity or post-construction runoff initiated after the effective date of this ordinance by any person, firm, association, or corporation subject to the ordinance provisions shall be deemed a violation unless conducted in accordance with the requirements of this ordinance.
- c. City staff shall notify the responsible party by certified mail of any noncomplying land disturbing activity or post-construction runoff. The notice shall describe the nature of the violation, remedial actions needed, a schedule for remedial action, and additional enforcement action which may be taken.
- d. Upon receipt of written notification from City staff under Section 10c, the responsible party shall correct work that does not comply with the storm water management plan or other provisions of this permit. The responsible party shall make corrections as necessary to meet the specifications and schedule set forth by City staff in the notice.
- e. If the violations to a permit issued pursuant to this ordinance are likely to result in damage to properties, public facilities, or waters of the state, City staff may enter the land and take emergency actions necessary to prevent such damage. The costs incurred by City staff plus interest and legal costs shall be billed to the responsible party.
- f. City staff is authorized to post a stop work order on all land disturbing activity that is in violation of this ordinance, or to request the city attorney to obtain a cease and desist order in any court with jurisdiction.
- g. City staff may revoke a permit issued under this ordinance for non-compliance with ordinance provisions.
- h. Any permit revocation, stop work order, or cease and desist order shall remain in effect unless retracted by City staff or by a court with jurisdiction.
- i. City staff is authorized to refer any violation of this ordinance, or a stop work order or cease and desist order issued pursuant to this ordinance, to the city attorney for the commencement of further legal proceedings in any court with jurisdiction.
- j. Any person, firm, association, or corporation who does not comply with the provisions of this ordinance shall be subject to a forfeiture of not less than the original permit fee, levied on a daily basis of non-compliance, together with the costs of prosecution. Each day that the violation exists shall constitute a separate offense.
- k. Compliance with the provisions of this ordinance may also be enforced by injunction in any court with jurisdiction. It shall not be necessary to prosecute for forfeiture or a cease and desist order before resorting to injunction proceedings.
- l. When City staff determines that the holder of a permit issued pursuant to this ordinance has failed to follow practices set forth in the storm water management plan, or has failed to comply with schedules set forth in said storm water management plan, City staff or a party designated by City staff may enter upon the land and perform the work or other operations necessary to bring the condition of said lands into conformance with requirements of the approved storm water management plan. City staff shall keep a detailed accounting of the costs and expenses of performing this work. These costs and expenses shall be deducted from any financial security posted pursuant to Section 9. Where such a security has not been established, or where such a security is insufficient

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to cover these costs, the costs and expenses shall be entered on the tax roll as a special charge against the property and collected with any other taxes levied thereon for the year in which the work is completed.